

AMENDMENTS TO THE CLAIMS:

Claims 1-11 (canceled)

Claim 12 (currently amended):      A furnace-type atomic absorption spectrophotometer comprising:

- a tube for heating a sample therein;
- monitoring means for monitoring temperature of said tube and outputting a monitored value indicative of the monitored temperature;
- heating control means for digitally controlling heating current for heating said tube such that said monitored value will approach a specified target temperature value; and
- parameter setting means for adjusting setting parameters that determine response characteristics of said heating control means, said parameter setting means adjusting said parameters according to kinds of elements to be detected and thereby controlling indicial response characteristics of said heating control means in units of milliseconds when said tube is heated by said heating control means;

wherein said heating control means includes a calculator for digitally obtaining a quantity of a specified operation of said heating control means by a PID control calculation on difference between said monitored value and said target temperature value and said parameter setting means serves to set at least one of parameters for said PID control calculation.

Claim 13 (previously presented):      The spectrometer of claim 12 wherein said indicial response characteristics include characteristics at a time of raising temperature.

Claim 14 (canceled)

Claim 15 (previously presented):      The spectrophotometer of claim 12 wherein said PID control is carried out with a proportional parameter, an integration parameter and a differential parameter.

Claim 16 (previously presented): The spectrophotometer of claim 12 wherein said monitoring means monitors values indicative of the temperature of said tube.

Claim 17 (canceled)